AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A sulfonate compound having the following general formula (1):

$$O=S=O$$

$$O=S=O$$

$$O=R^{1}$$

$$R^{3}$$

$$R^{3}$$

$$R^{3}$$

$$R^{3}$$

wherein R¹ to R³ each are fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹ to R³ contains fluorine, R¹ and R², R¹ and R³, or R² and R³, taken together, may form a ring, each of R¹ to R³ is a straight or branched alkylene or fluorinated alkylene group of 1 to 18 carbon atoms, preferably 1 to 10 carbon atoms, when they form a ring.

2. (Currently Amended) A polymer comprising recurring units of the following general formula (2) and having a weight average molecular weight of 1,000 to 500,000,

$$O = S = O$$

$$O$$

$$R^{1} \longrightarrow R^{2}$$

$$R^{3}$$

$$(2)$$

wherein R¹ to R³ each are fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹ to R³ contains fluorine, R¹ and R², R¹ and R³, or R² and R³, taken together, may form a ring, each of R¹ to R³ is a straight or branched alkylene or fluorinated alkylene group of 1 to 18 carbon atoms, preferably 1 to 10 earbon atoms, when they form a ring.

3. (Currently Amended) A polymer comprising recurring units of the following general formula (2) and recurring units of at least one type selected from the following general formulae (3a) to (3f) and having a weight average molecular weight of 1,000 to 500,000,

wherein R¹ to R³ each are fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹ to R³ contains fluorine, R¹ and R², R¹ and R³, or R² and R³, taken together, may form a ring, each of R¹ to R³ is a straight or branched alkylene or fluorinated alkylene group of 1 to 18 carbon atoms, preferably 1 to 10 carbon atoms, when they form a ring,

wherein R⁴, R⁵, R⁷, R⁸ and R¹⁵ each are a single bond or a straight, branched or cyclic alkylene or fluorinated alkylene group of 1 to 20 carbon atoms, R⁶, R⁹, R¹² and R¹⁸ each are hydrogen or an acid labile group, R¹⁰, R¹¹, R¹³, R¹⁴, R¹⁶ and R¹⁷ each are hydrogen, fluorine, a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹⁶ and R¹⁷ contains at least one fluorine atom, R¹⁹ is a straight, branched or cyclic fluorinated alkyl group of 1 to 20 carbon atoms, "a" and "b" each are 1 or 2.

Application No. 10/773,340 Amendment dated March 13, 2006 Reply to Office Action of December 13, 2005

4. (Currently Amended) A polymer comprising recurring units of the following general formula (2) and recurring units of the following general formula (4) and having a weight average molecular weight of 1,000 to 500,000,

$$O = S = O$$

$$O$$

$$R^{1} \longrightarrow R^{3}$$

$$(2)$$

wherein R¹ to R³ each are fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹ to R³ contains fluorine, R¹ and R², R¹ and R³, or R² and R³, taken together, may form a ring, each of R¹ to R³ is a straight or branched alkylene or fluorinated alkylene group of 1 to 18 carbon atoms, preferably 1 to 10 carbon atoms, when they form a ring,

$$R^{21} \xrightarrow{R^{20}} R^{20}$$

$$R^{21} \xrightarrow{R^{22}} R^{23}$$

$$R^{22} R^{24}$$

$$(4)$$

wherein R^{20} is a methylene group, oxygen atom or sulfur atom, R^{21} to R^{24} each are hydrogen, fluorine, $-R^{25}$ -OR 26 , $-R^{25}$ -CO $_2$ R 26 or a straight, branched or cyclic alkyl or fluorinated alkyl group

Birch, Stewart, Kolasch & Birch, LLP

Page 5 of 13

of 1 to 20 carbon atoms, at least one of R²¹ to R²⁴ containing -R²⁵-OR²⁶ or -R²⁵-CO₂R²⁶, R²⁵ is a single bond or a straight, branched or cyclic alkylene or fluorinated alkylene group of 1 to 20 carbon atoms, R²⁶ is hydrogen, an acid labile group, adhesive group or a straight, branched or cyclic fluorinated alkyl group of 1 to 20 carbon atoms which may contain a hydrophilic group such as hydroxyl, and c is 0 or 1.

5. (Original) The polymer of claim 4 wherein said recurring units of formula (4) have a structure of the following general formula (4a) or (4b):

$$R^{27}$$
 R^{28}
 R^{26}
 R^{29}
 R^{26}
 R^{26}
 R^{26}
 R^{26}
 R^{26}

wherein R^{26} is as defined above, R^{27} to R^{30} each are hydrogen, fluorine or an alkyl or fluorinated alkyl group of 1 to 4 carbon atoms, at least either one of R^{27} and R^{28} contains at least one fluorine atom, and at least either one of R^{29} and R^{30} contains at least one fluorine atom.

6. (Currently Amended) A polymer comprising recurring units of the following general formula (2) and recurring units of at the following general formula (5) and having a weight average molecular weight of 1,000 to 500,000,

Application No. 10/773,340 Docket No.: 0171-1061P

Amendment dated March 13, 2006 Reply to Office Action of December 13, 2005

wherein R¹ to R³ each are fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹ to R³ contains fluorine, R¹ and R², R¹ and R³, or R² and R³, taken together, may form a ring, each of R¹ to R³ is a straight or branched alkylene or fluorinated alkylene group of 1 to 18 carbon atoms, preferably 1 to 10 carbon atoms, when they form a ring,

$$(R^{31})$$

$$(R^{32})_{e}$$

$$(R^{34})_{e}$$
(5)

wherein R^{31} is hydrogen, fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, R^{32} is a single bond or a straight, branched or cyclic alkylene or fluorinated alkylene group of 1 to 20 carbon atoms, R^{33} is hydrogen or an acid labile group, R^{34} is fluorine or a straight, branched or cyclic fluorinated alkyl group of 1 to 20 carbon atoms, d is 1 or 2, and e is an integer of 0 to 4, satisfying $1 \le d + e \le 5$.

7. (Original) The polymer of claim 6 wherein the recurring units of formula (5) have the following formula (5a) or (5b):

wherein R^{33} is as defined above, R^{35} to R^{40} each are hydrogen, fluorine or an alkyl or fluorinated alkyl group of 1 to 4 carbon atoms, at least either one of R^{35} and R^{36} contains at least one fluorine atom, at least either one of R^{37} and R^{38} contains at least one fluorine atom, and at least either one of R^{39} and R^{40} contains at least one fluorine atom.

8. (Currently Amended) A polymer comprising recurring units of the following general formula (2) and recurring units of the following general formula (6) and having a weight average molecular weight of 1,000 to 500,000,

Docket No.: 0171-1061P

Application No. 10/773,340 Amendment dated March 13, 2006 Reply to Office Action of December 13, 2005

wherein R¹ to R³ each are fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, at least one of R¹ to R³ contains fluorine, R¹ and R², R¹ and R³, or R² and R³, taken together, may form a ring, each of R¹ to R³ is a straight or branched alkylene or fluorinated alkylene group of 1 to 18 carbon atoms, preferably 1 to 10 carbon atoms, when they form a ring,

$$\begin{array}{c}
R^{41} \\
R^{42}
\end{array}$$

$$\begin{array}{c}
0 \\
0 \\
R^{44}
\end{array}$$
(6)

wherein R⁴¹ to R⁴³ each are hydrogen, fluorine or a straight, branched or cyclic alkyl or fluorinated alkyl group of 1 to 20 carbon atoms, and R⁴⁴ is hydrogen, an acid labile group, an adhesive group or a straight, branched or cyclic fluorinated alkyl group of 1 to 20 carbon atoms which may contain a hydrophilic group such as hydroxyl.

9. (Original) The polymer of claim 8 wherein R⁴³ in formula (6) is trifluoromethyl.

Application No. 10/773,340 Amendment dated March 13, 2006 Reply to Office Action of December 13, 2005

- 10. (Original) A resist composition comprising the polymer of claim 2.
- 11. (Original) A chemically amplified positive resist composition comprising
- (A) the polymer of claim 2,
- (B) an organic solvent, and
- (C) a photoacid generator.
- 12. (Original) The resist composition of claim 11, further comprising (D) a basic compound.
- 13. (Original) The resist composition of claim 11, further comprising (E) a dissolution inhibitor.
- 14. (Original) A process for forming a resist pattern comprising the steps of:
 applying the resist composition of claim 10 onto a substrate to form a coating,
 heat treating the coating and then exposing it to high-energy radiation in a wavelength
 band of 100 to 180 nm or 1 to 30 nm through a photomask, and
 optionally heat treating the exposed coating and developing it with a developer.
- 15. (Original) The pattern forming process of claim 14 wherein the high-energy radiation is an F_2 laser beam, Ar_2 laser beam or soft x-ray.

(C)

a photoacid generator.

16. (Previously presented) A chemically amplified positive resist composition comprising	
(A)	the polymer of claim 3,
(B)	an organic solvent, and
(C)	a photoacid generator.
17. (Previously presented) A chemically amplified positive resist composition comprising	
(A)	the polymer of claim 4,
(B)	an organic solvent, and
(C)	a photoacid generator.
18. (Previously presented) A chemically amplified positive resist composition comprising	
(A)	the polymer of claim 6,
(B)	an organic solvent, and
(C)	a photoacid generator.
19. (Previously presented) A chemically amplified positive resist composition comprising	
(A)	the polymer of claim 8,
(B)	an organic solvent, and

Docket No.: 0171-1061P